



## CLASS DESCRIPTIONS FOR THE IOA

### TRUCK CLASSES

#### 1. Unlimited Truck

- Unlimited engine displacement and suspension. Custom built tube chassis and powered by highly modified 850 HP engines. Forced induction allowed. Two or four-wheel drive or AWD.
- Vehicles must have a production appearing Truck or Sports Utility Vehicle (SUV) body. Gasoline and diesel engines with unlimited displacement allowed and may be either normally aspirated or forced induction.
- Entrants in this class shall comply with all applicable IOA regulations.
- This class is an open production class, and all components will be considered open unless restricted herein.
- Unlimited number of cylinders and displacement on internal combustion engines.
- Forced induction is allowed for all gasoline and diesel engines. No restrictions on turbo size or manufacture. No restriction on air intake size.
- Heat exchangers (intercoolers) may use any liquid or gas that is non-flammable.
- Diesel engines must be clean burning. Diesel engine smoke is PROHIBITED! Water injection is allowed.
- Vehicle must weigh 3500lbs. (wet) minimum.
- Must maintain a production appearing body. A body must be constructed of any material that can be shaped to resemble a production truck or SUV body. Body design subject to IOA approval. Stock appearing grill and head light opening must be retained.

#### 2. Spec Truck

- Similar in design and construction to Unlimited Trucks utilizing high performance sealed stock or “crate” engines. Sealed Spec engines only, no rebuilds. Must be two-wheel drive only with solid rear drivetrain.
- Class limited to specified Sealed Motors with maximum 525 hp. Two-wheel drive only, must use TH400 Transmission. Underdrive units are allowed.
- Entrants in this class shall comply with all applicable IOA regulations.
- No restrictions on tires and wheels.
- Racing Fuel Cells are mandatory.



Must use one of the following approved sealed engines – 525 horsepower is maximum limit. A maximum of eight-cylinder engines allowed in this class.

- GM LS3 V8 (525 HP) part no. 19370413 with GM controller kit part no. 19354332, ECU unit only 19354333
- GM LS3 V8 (430 HP) part no. 19370416 with GM controller kit part no. 19354328, ECU unit only 19354329
- GM LT1 V8 (525 HP) part no. 19416592 with LT1 control pack part no. 19417227
- Ford 3.5L twin turbo Eco-boost engine and control pack kit part no. M-6000-35TK

GM: LS engines must use factory GM LS style wet sump oil pan; no aftermarket pans are permitted. GM pans may be modified to fit chassis, modified pans must use stock baffling and no increase in volume is permitted. Pans must be inspected and installed by IOA service center when engine is sealed. No dry sump oil systems allowed. All GM engines will be open to any GM wet sump oil pan but must be approved and installed by IOA authorized sealing center technicians.

Ford: No dry sump oil systems allowed. All Ford engines must use wet sump stock oil pan as delivered in the engine kit from the manufacturer. Ford pans may be modified to fit chassis, modified pans must use stock baffling and no increase in volume is permitted. Pans must be inspected and installed by IOA authorized sealing center technicians at the time engine is sealed.

- Billet fuel rails are allowed.
- Water pumps are open, must be mechanical factory concept, no electric pumps allowed.
- Following modifications are not allowed:
  - No aftermarket ECU systems installed in the vehicle.
  - NO aftermarket camshaft replacement – factory cam upgrade to 525hp allowed – see below.
  - No balancing
  - No engine block decking
  - No line boring
  - No dry sumps
  - No rebuilding
- Upgrading 430hp LS3 engines – 430hp LS3 engines may be upgraded to 525hp versions ONLY by changing to GM camshaft part no. 88958770. All conversion work must be done by IOA authorized sealing technicians only. Engines must be re-sealed by IOA sealing center after cam is replaced.
- Engine replacement – New crate engines sealed and tagged allowed. Rebuilt or previously installed engines must have specifications reverified and be re-tagged by authorized IOA engine centers.



- Transmission – Turbo 400 automatic transmission only. Single speed underdrive units are allowed. No two-speed units. May be of any manufacturer.
- Throttles – Electronic throttle pedal assembly (fly-by-wire) allowed only if delivered as part of engine control pack delivered direct from manufacturer.
- Exhaust – open
- Drive shafts – open
- Flywheel shields – open
- Forced induction – Must be supplied as part of OEM engine package. No aftermarket units are allowed in this class.
- Seating – Maximum of two seats – no center seating. Three seats require special permission from the tech director.

## UTV CLASSES

### 3. Unlimited UTV

- Maximum engine displacement is 2000cc for N/A and 1000cc for turbo. Engine size will be checked and measured. Motorcycles, snowmobiles, and UTV engines are allowed.
- Fuel delivery is open.
- Transmission, gearbox, and differentials are open.
- 54mm maximum turbo size
- Oil coolers, transmission coolers, and radiators located ahead of the driver or in the driver's compartment must have a shroud that will prevent liquids from blowing back or leaking onto the driver and/or co-driver in the event of a rupture or leakage. All hoses running through the passenger compartment must be shielded. Steel braided hoses do not constitute a shield. Maximum intercooler size TBD
- Must start as a stock UTV.
- Chassis and frames are open, may be reproduced in chromoly or DOM with OEM stock pivot geometry. 4130 chromoly is highly recommended for all roll cage construction. IOA reserves the right to weigh any vehicle at any time and check the wall thickness of the tubing used to build the roll cage.
- Open motors.
- All suspension and mounting points must remain in the stock design and in the stock location and or position on the frame, as delivered by the manufacturer. Suspension mounting points may be reinforced for strength. No suspension mounts may be moved, added, or removed.
- The max width 80" and is measured from the outside of tire to outside of tire at ride height. Width may be checked at any time. Wheelbase can be increased to 8 inches over the stock dimensions. This can only be achieved through the suspension.



- Frames cannot be cut, lengthened, or shortened.
- A VHF type radio is required in all race vehicles. All UTV race vehicles must have their team radio frequency posted inside their vehicle on the passenger side roof area. IOA official frequency is ###.###. The IOA frequency is required on every radio. All race teams are required to provide team specific radio frequency information to the IOA.
- There must be at least one and only one coil over shock absorber per wheel in working condition at the start of the race. Shock absorber mounting points may be moved and strengthened.
- Suspension bump stops are allowed. They must be of the solid type. No air bump stops.
- The only torsion system that is allowed is a coil-over shock.
- Maximum tire size is 35". Tires must have manufacturer size on tire and say 35". No multiple tires per corner permitted.
- Maximum wheel size is 15". All wheels must be stamped or engraved on the outside, within 2" of the valve stem, with the race vehicles number, this includes spares. The minimum stamp size of the number is ¼".
- Power steering is permitted. Turning or steering brakes are permitted.
- All UTV's must have a battery switch. Batteries must be securely mounted with metal attachments. All flooded cell batteries must be fully enclosed including the sides and bottom. Enclosure must be able to contain the quantity of acid contained in the battery if inverted. Gel filled batteries or dry cell batteries are recommended and do not require full enclosures. Batteries mounted in the driver's compartment must be covered and may not be liquid filled.
- All 4 rear facing safety lights must be wired to the battery switch. No other switches may be in line with the safety lights. UTV's require a minimum of 2 rear facing safety lights.
- All UTV race vehicles must have a rear bumper secured to frame using minimum 1.5" outside diameter, .083" wall thickness. Front and rear bumpers must stick out a minimum of 2" past the tires, front to back. This is to prevent tires from touching when nerfing. Bumper ends must be made in such a way as to avoid any sharp edges. Bumpers and nerf bars must be designed in a way as to inhibit two vehicles from becoming locked together. A safe front and rear bumper are required on all vehicles. No hazardous front or rear bumpers, nerf bars, frame heads or other protruding objects from vehicles are permitted.
- All vehicles in competition must display the official IOA decal on both sides of the vehicle. All vehicles in competition must have identification numbers in the following locations and sizes: Minimum 8" tall with 1" wide stroke on each side of vehicle in line with the occupants. Minimum 6" tall with 1" wide stroke on the rear of vehicle and is plainly visible from the rear. A minimum of 4" tall located



on the front of vehicle or roof and is plainly visible from the front of vehicle. All vehicles in competition must be identified with the correct class vehicle numbers and be displayed in the proper locations as described herein. IOA assigns vehicle numbers. Call IOA to get a race number. All Trophy UTV class vehicles can have any color numbers on any color background. Numbers must be easy to see and read at race speeds. Number color and background must be approved by the IOA UTV tech inspector.

- As the OEM Manufacturers produce new UTV's and update parts, Racers now can use the current parts on their older UTVs. All parts must be a direct bolt on. No non-OEM adapters allowed. Engine and transmission mounts may be modified to accept the updated part. Updated frames may be used. However, Turbo frames must only have turbo engines in T900 Class and N/A frames must use N/A engines in 1900 N/A class. The intent of this rule is to allow racers to update their UTV's with the most current parts available.

#### 4. Spec UTV

- 1000cc maximum
- Must be naturally aspirated, no turbo.
- CVT with belt only
- OEM chassis with bulkhead and gussets
- OEM pivots
- Sealed OEM engines only, no modifications
- Interchangeable with OEM cars including steering.
- Maximum radiator size TBD, rear mounted radiators are ok.
- OEM appearing bodies.
- Max tire size to be 33".

